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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/059,693	01/28/2002	Joseph W. Tsang	10011434 -1	5926

7590 05/19/2004

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

MAPLES, JOHN S

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/059,693

Applicant(s)

TSANG ET AL.

Examiner

John S. Maples

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 ~~is/are~~ are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 ~~is/are~~ are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-10, 12-25, 27-30 are rejected under 35 U.S.C. 102(b) as being anticipated by either Fukuda et al.-US 3,666,565 ('565) or Fukuda et al.-US 3,892,592 ('592).

Reference is made to column 1, lines 29-66 of '565 and column 2, lines 56-72; column 3, lines 1-10; column 3, line 49-column 4, line 4.

See the Abstract in '592 along with column 1, lines 12-56; column 3, lines 4-13 and the Example.

Both of the above references teach the use of an aqueous sodium borohydride anolyte used in a fuel cell that has an anode comprising the dual catalysts material where the cathode includes the recited one catalyst material.

Applicant's arguments have all been considered but are not deemed persuasive. Applicant argues that the two anode catalysts in both '565 and '592 are not separate. The examiner respectfully disagrees. Applicant further states that separate means that the catalysts may be in contact with each other but they are not in intimate contact at all surfaces.

It is the examiner's assertion that both '565 and '592 set forth the dual anode catalysts that are in contact with each other and that are not in contact at all surfaces. Column 3, line 50-column 4, line 19 of '565 recites the dual anode catalyst as either 1) a mixture of the two anode catalysts, or 2) where one of the anode catalysts is layered over

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the other anode catalyst. Both configurations of the dual anode catalysts in '565 meet the criteria of being separate because the dual catalysts are in contact with each other and they are not in contact with one another at all surfaces. With regard to the layered anode catalysts, the outermost layer of a first anode catalyst that is layered onto another anode catalyst is not in contact with the first anode catalyst.

With regard to '592, this patent sets forth in column 3, lines 39-55, the same two configuration dual anode catalyst as set forth for the '565 anode catalyst and so '592 meets the claimed subject matter as does the '565 patent.

Finally, applicant states that one would not be motivated to separate the dual catalysts materials in either '565 or in '592. In view of the fact that the dual catalysts materials in both '565 and '592 meet the claimed subject matter as discussed above, there would be no need to separate the dual catalysts.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

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prior art under 35 U.S.C. 103(a).

5. Claims 11 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over either '565 or '592, each taken in view of Amendola-US 5,804,329. (Amendola)

Both of the '565 and '592 references set forth all of the claimed subject matter except for the carrier of the borohydride being non-aqueous. Amendola teaches a fuel cell utilizing borohydride as a fuel in a non-aqueous carrier-see column 17, lines 36-47 and claims 4-9. To have utilized a non-aqueous carrier for the borohydride in either '565 or '592 would have been obvious to one of ordinary skill in this art at the time the invention was made so that the fuel cell therein could have been used at low temperatures and so that the cell could be used at specific energies.

Applicant's arguments relating to this rejection have been considered but are not persuasive. Applicant argues this 103 rejection based on the deficiency of the two primary references '565 and '592 and so the argument set forth by the applicant is rendered moot because the examiner applied these references in combination with Amendola. The examiner traversed the arguments based on the two individual references '565 and '592 in section 2 of this action.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John S. Maples whose telephone number is 571-272-1287. The examiner can normally be reached on Monday through Thursday from 6:15-3:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or preceeding is assigned is 703-872-9310.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John S. Maples
Primary Examiner
Art Unit 1745

JSM/5-17-2004